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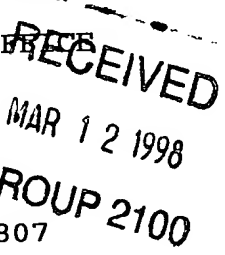
RESPONSE UNDER 37 CFR 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP NO. 1807

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

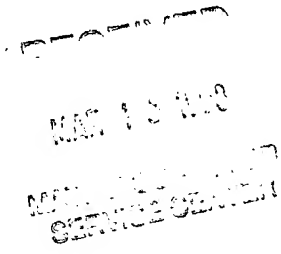
In re application of:

Cook, *et al.*

Serial No.: 08/117,363 Group Art Unit: 1807

Filed: September 3, 1993 Examiner: S. Houtteman

For: AMINE-DERIVATIZED NUCLEOSIDES AND OLIGONUCLEOSIDES



I, **Joseph Lucci**, Registration No. **33,307** certify that this correspondence is being deposited with the U.S. Postal Service as First Class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

On **March 5, 1998**

Joseph Lucci Reg. No. **33,307**

Box AF
Assistant Commissioner
For Patents
Washington, D.C. 20231

AMENDMENT TRANSMITTAL LETTER

Transmitted herewith is an amendment in the above-identified application responsive to the Office Action dated January 7, 1998.

( ) Small entity status of this application under 37 CFR 1.9 and 1.27 has been established by a verified statement previously submitted.

( ) A verified statement claiming small entity status under 37 CFR 1.9 and 1.27 is enclosed.

( ) Statement to Support Filing and Submission of DNA/Amino Acid Sequences in Accordance with 37 CFR §§ 1.821 through 1.825.

(XX) No additional fee is required.

The fee for additional claims presented in this amendment has been calculated as follows:

				SMALL ENTITY			OTHER THAN SMALL ENTITY	
	Claims Remaining After Amendment	Highest Number Previously Paid for	No. Extra	Rate	Fee	OR	Rate	Fee
Total Claims	29	35 (at least 20)	0	x$11=	$0	OR	x$22=	$
Indep. Claims	2	3 (at least 3)	0	x$11=	$0	OR	x$82=	$
First Presentation Multiple Dependent Claims			+	$135=	$0	OR	$270=	$
Total fee for added claims:					$0			$

( ) Please charge my Deposit Account No. 23-3050 in the amount of $____. This sheet is attached in triplicate.

( ) A check in the amount of $_____ is attached. Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050.

(XX) The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 23-3050. This sheet is attached in triplicate.

(XX) Any additional filing fees required under 37 CFR 1.16 including fees for presentation of extra claims.

(XX) Any additional patent application processing fees under 37 CFR 1.17 and under 37 CFR 1.20(d).

(XX) The Commissioner is hereby authorized to charge payment of the following fees during the pendency of this application or credit any overpayment to Deposit Account No. 23-3050. This sheet is attached in triplicate.

(XX) Any patent application processing fees under 37 CFR 1.17 and under 37 CFR 1.20(d).

( ) The issue fee set in 37 CFR 1.18 at or before mailing of the Notice of Allowance, pursuant to 37 CFR 1.311(b).

(XX) Any filing fees under 37 CFR 1.16 including fees for presentation of extra claims.

Date: **March 5, 1998**

Joseph Lucci
Registration No. 33,307

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RESPONSE UNDER 37 CFR 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP NO. 1807

PATENT

#30
B.G.
3/18/98
(NE)

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In re application of:

Cook, *et al.*

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Assistant Commissioner
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REQUEST FOR RECONSIDERATION

This responds to the Office Action mailed January 7, 1998, in connection with the above-identified patent application.

Claims 1-29 are pending in this patent application.

Claims 1-19 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1-29 of co-pending application Serial No. 08/464,953. Applicants request that this rejection be deferred pending some identification of allowable subject matter, as it likely can be overcome (depending upon the

nature of the allowed claims) by the filing of a terminal disclaimer.

Claims 1-4, 6-18, and 20-29 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,910,300 ("the Urdea patent") in view of U.S. Patent No. 4,743,535 ("the Carrico patent"), International patent application WO 92/05186 ("the Matteucci reference"), and International patent application WO 91/14696 ("the Latham reference"). The Office Action, however, no longer appears to rely upon the Urdea patent for its alleged disclosure of a 5'-O-position having an amine substituent. Since this disclosure was the only teaching in the Urdea patent that had been relied upon in support of the rejection for alleged obviousness (*see* Office Action mailed December 13, 1996, at page 4), Applicants request that the present rejection be reconsidered and withdrawn. Indeed, it is not seen how the claims could be "unpatentable over Urdea," as the outstanding Office Action contends, when the only disclosure of the Urdea patent alleged to be relevant is not, in fact, being relied upon. Accordingly, the rejection for alleged obviousness, as presently framed, is improper and should be withdrawn.

The Office Action appears to suggest that the Examiner is considering entry of a new ground for rejection under § 103 based upon only the Carrico patent and the Matteucci and Latham references. As a preliminary matter, Applicants note that entry

of such a rejection would require a withdrawal of finality. In any event, not only is there no evidence of record indicating that those of ordinary skill in the art would have found it obvious to combine the teachings of the Carrico, Matteucci, and Latham references, but the Office Action has not even demonstrated that the proposed combination would have produced a claimed invention.

The Office Action appears to suggest that those of ordinary skill would have been motivated by the Latham reference to attach a "O-C-N" linkage (said to be disclosed by the Matteucci reference) at the 2'-position of a nucleoside, thereby producing the following structure:

2'-O-C-N

The Office Action, however, has not demonstrated that this structure -- in which the C and N atoms have undefined valency -- would actually be within the scope of any pending claim. Absent a more detailed explanation as to the as-yet undefined compound alleged to result from the proposed combination, the rejection for alleged obviousness is improper and should be withdrawn. *In re Payne*, 203 U.S.P.Q. 245, 255 (C.C.P.A. 1979) (references relied upon to support rejection under § 103 must place the claimed invention in the possession of the public).

Morover, the Office Action does not state why a person of ordinary skill would have even been motivated to make this modification. It is well-established that claims cannot be found

obvious in view of a combination of references unless the prior art itself suggests the desirability of the combination. *Berghauser v. Dann*, 204 U.S.P.Q. 393 (D.D.C. 1979); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929 (Fed. Cir. 1984). There must be something in the prior art that would have motivated persons of ordinary skill to make the combination. *In re Stencel*, 4 U.S.P.Q.2d 1071, 1073 (Fed. Cir. 1987), *accord*, *Ex parte Marinaccio*, 10 U.S.P.Q.2d 1716 (Pat. Off. Bd. App. 1989) (combining references is improper absent some teaching, suggestion, or motivation for the combination in the prior art). Obviousness cannot be established by merely showing that it would have been possible for a person of ordinary skill to combine certain references. There must be affirmative evidence that such a person would have been impelled to make the combination. In this respect, the following statement by the Patent Office Board of Appeals is noteworthy:

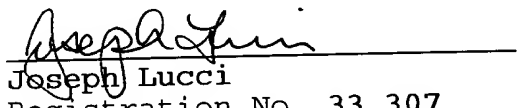
> Our reviewing courts have often advised the Patent and Trademark Office that it can satisfy the burden of establishing a *prima facie* case of obviousness only by showing some objective teaching in either the prior art, or knowledge generally available to one of ordinary skill in the art, that "would lead" that individual "to combine the relevant teachings of the references." ... Accordingly, an examiner cannot establish obviousness by locating references which describe various aspects of a patent applicant's invention without also providing evidence of the motivating force that would ***impel*** one skilled in the art to do what the patent applicant has done.

In re Levengood, 28 U.S.P.Q.2d 1300, 1302 (Pat. Off. Bd. App. 1993) (citations omitted; emphasis added).

Significantly, the Office Action identifies no "motivating force" that would have "impelled" persons of ordinary skill to combine the respective teachings of the Matteucci and Latham references. This fact alone mandates withdrawal of the rejection. There is simply no reason why a person of ordinary skill would have been motivated to take one of the non-terminal, 3′-5′ internucleoside linkages disclosed by the Matteucci reference (such a linkage being covalently bound at both of its ends) and then attach it in a terminal manner at the 2′-position (so as to be covalently bound at only one end), nor has the Office Action endeavored to provide any reason as to why a person of ordinary skill would have been so motivated. Given this deficiency, the rejection for alleged obviousness is improper and should be withdrawn.

It is believed all of the claims presently before the Examiner patentably define the invention over the prior art and are otherwise in condition for ready allowance. An early Office Action to that effect is, therefore, earnestly solicited.

Respectfully submitted,



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